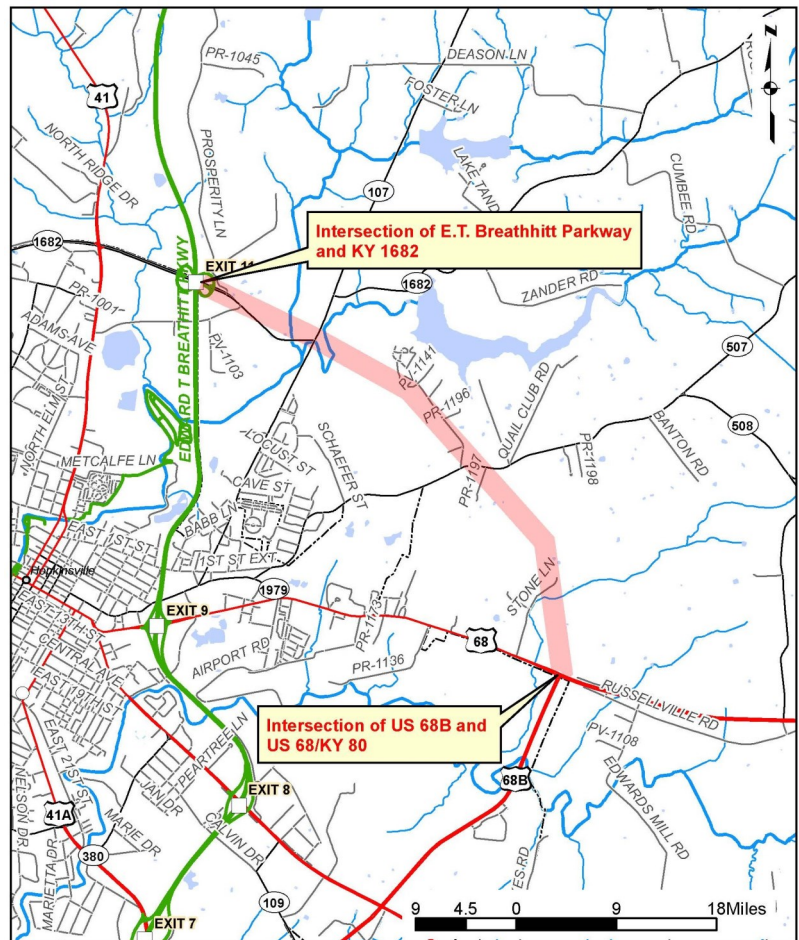
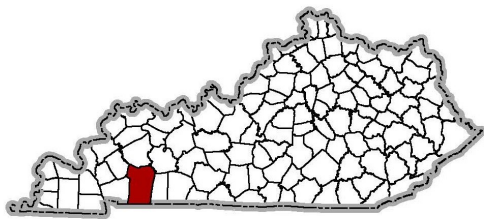


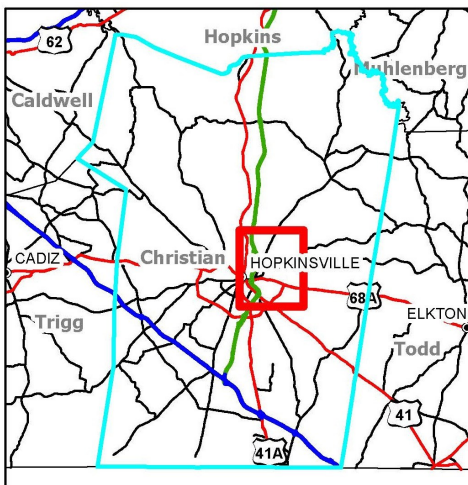
D<sub>ata</sub>

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## Scoping Study

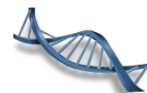


Christian County KY 1682

Extend KY 1682 from the E. T. Breathitt PKWY to US 68/KY 80

Item No. **2-136.00**

Prepared by  
KYTC District 2 Planning  
August 2017



| I. PRELIMINARY PROJECT INFORMATION  |  |  |   |                                    |                |
|---|--|--|---|------------------------------------|----------------|
| <b>County:</b>  | Christian  | <b>Item No.:</b>   | 02-136.00   |                                    |                |
| <b>Route Number(s):*</b>  | KY 1682  | <b>Road Name:</b>  | Dr Martin Luther King Jr Way  |                                    |                |
| <b>Program No.:</b>   | 9264001D   | <b>UPN:</b>  | FD52  | 024                                | 1682 004 - 010 |
| <b>Federal Project No.:</b>   | STP 3017 028   | <b>Type of Work:</b>                                       | New Route   |                                    |                |
| 2016 Highway Plan Project Description:  |  |  |   |                                    |                |
| Extend KY 1682 from the E.T. Breathitt Parkway to US 68/KY 80 east of Hopkinsville (Hopkinsville Northeast Bypass). (16CCR)   |  |  |   |                                    |                |
| <b>Beginning MP:</b>  | 4.973  | <b>Ending MP:</b>  |   | <b>Project Length:</b> appr. 5 mi. |                |
| <b>In TIP:</b>  | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  | <a href="#">Reconcile Project Information in Clearview</a> |   |                                    |                |
| <b>State Class.:</b>  | <input type="checkbox"/> Primary <input checked="" type="checkbox"/> Secondary   | <b>Route is on:</b>  | <input type="checkbox"/> NHS <input checked="" type="checkbox"/> NN <input type="checkbox"/> Ext Wt |                                    |                |
| <b>Functional Class.:</b>   | <input type="checkbox"/> Urban <input checked="" type="checkbox"/> Rural Collector   | <b>Truck Class.:</b>                                       | AAA   | <b>% Trucks:</b>                   | 13.1           |
| <b>MPO Area:</b>  | Not Applicable   | <b>Terrain:</b>  | Rolling   |                                    |                |
| <b>ADT (current):</b>   | (Year)   |  |   |                                    |                |
| <b>Access Control:</b>  | <input type="checkbox"/> None <input type="checkbox"/> Permit <input type="checkbox"/> Fully Controlled <input checked="" type="checkbox"/> Partial  | <b>Spacing:</b>  | 1200 ft   |                                    |                |
| <b>Median Type:</b>   | <input type="checkbox"/> Undivided <input checked="" type="checkbox"/> Divided (Type):   |  |   |                                    |                |
| <b>Existing Bike Accommodations:</b>  | None   | <b>Ped:</b>  | <input type="checkbox"/> Sidewalk   |                                    |                |
| <b>Posted Speed:</b>  | <input type="checkbox"/> 35 mph <input type="checkbox"/> 45 mph <input checked="" type="checkbox"/> 55 mph <input type="checkbox"/> Other (Specify): |  |   |                                    |                |
| <b>KYTC Guidelines Preliminarily Based on :</b>   |  | <b>MPH Proposed Design Speed</b>                           |   |                                    |                |
| <b>COMMON GEOMETRIC PRACTICES**</b>   |  |  |   |                                    |                |
| <b>Roadway Data:</b>  | <b>EXISTING</b>  |  |   |                                    |                |
| No. of Lanes  | 4  |  | <a href="#">Existing Rdwy. Plans available?</a>   |                                    |                |
| Lane Width  | 12 ft  |  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                                 |                                    |                |
| Shoulder Width  | 3 ft left, 12 ft right   |  | Year of Plans:  |                                    |                |
| Max. Superelevation***  |  |  | <input type="checkbox"/> <a href="#">Traffic Forecast Requested</a>                                 |                                    |                |
| Minimum Radius***   |  |  | Date Requested:   |                                    |                |
| Maximum Grade   |  |  | <input type="checkbox"/> Mapping/Survey Requested   |                                    |                |
| Minimum Sight Dist.   |  |  | Date Requested:   |                                    |                |
| Sidewalk Width(urban)   |  |  | Type:   |                                    |                |
| Clear-zone <sup>†</sup>   |  |  |   |                                    |                |
| Project Notes/Design Exceptions?  |  |  |   |                                    |                |
| <b>Bridge No.:<sup>‡</sup></b>  | (Bridge #1)  | (Bridge #2)  |   |                                    |                |
| Sufficiency Rating  |  |  | <a href="#">Existing Geotech Data Available?</a>  |                                    |                |
| Total Length  |  |  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                                 |                                    |                |
| Width, curb to curb   |  |  |   |                                    |                |
| Span Lengths  |  |  |   |                                    |                |
| Year Built  |  |  |   |                                    |                |
| Posted Weight Limit   |  |  | Detour Length(s):   |                                    |                |
| Structurally Deficient?   |  |  |   |                                    |                |
| Functionally Obsolete?  |  |  |   |                                    |                |
| Existing Bridge Type  |  |  |   |                                    |                |
| <p>*If more than one road is included in the project, include additional sheets.</p> <p>**Based on proposed Design Speed</p> <p>***AASHTO's A Policy on Geometric Design of Highways and Streets</p> <p>+AASHTO's Roadside Design Guide</p> <p>‡If more than two bridges are located on the project, include additional sheets.</p> |  |  |   |                                    |                |

## II. PROJECT PURPOSE AND NEED

### A. Legislation

This project is in the approved 2016 Highway plan.

| <i>Funding</i> | <i>Phase</i> | <i>Year</i> | <i>Amount</i> |
|----------------|--------------|-------------|---------------|
| STP            | D            | 2017        | \$2,940,000   |
|                | R            |             |               |
|                | U            |             |               |
|                | C            |             |               |

### B. Project Status

This was UPL project # 02 024 C0000 1673.0 and was identified by the Pennyrile ADD in 2010. Design funds were authorized in February 2017.

### C. System Linkage

This will connect the parkway with existing US 68B on the east side and complete the bypass around Hopkinsville.

### D. Modal Interrelationships

This section is not included in any published bike routes. There are no railroad, transit, riverport or freight networks associated with the new section.

### E. Social Demands & Economic Development

Completion of this project will promote development in Hopkinsville's Northeast area. This project is near the industrial area of Hopkinsville as well as the Hopkinsville-Christian County Airport.

## II. PROJECT PURPOSE AND NEED (cont.)

### F. Transportation Demand

In 2015 the existing section of KY 1682 between the parkway and KY 107 had an ADT of 4274 with 13% truck traffic.

### G. Capacity

The capacity of the existing section of KY 1682 between the parkway and KY 107 will be increased by reconstructing it to a 4 lane.

### H. Safety

Because this project involves the construction of a new route, completion of this bypass is expected to relieve congestion and improve safety in the Hopkinsville area as vehicles traveling south on the parkway wishing to go to US 68 east, and vice versa, will no longer be required to head into town.

### I. Roadway Deficiencies

This is a new route that should be constructed to meet current design standards while matching the typical section template between US 41 and the parkway.

| III. PRELIMINARY ENVIRONMENTAL OVERVIEW   |            |
|---|------------|
| <b>A. Air Quality</b><br>Project is in: <input type="checkbox"/> Attainment area <input checked="" type="checkbox"/> Nonattainment or Maintenance Area <input type="checkbox"/> PM 2.5 County<br>STIP Pg. #: 10 TIP Pg. #:  |            |
| <b>B. Archeology/Historic Resources</b><br><input type="checkbox"/> Known Archeological or Historic Resources are present<br>Need plans. New route.   |            |
| <b>C. Threatened and Endangered Species</b><br>Potential along the Upper and Lower Branch North Fork Little River and in the large areas of woods nearby.   |            |
| <b>D. Hazardous Materials</b><br><input type="checkbox"/> Potentially Contaminated Sites are present <input type="checkbox"/> Potential Bridge or Structure Demolition<br>Need plans. New route.  |            |
| <b>E. Permitting</b><br>Check all that may apply: <input type="checkbox"/> Waters of the US <input type="checkbox"/> MS4 area <input type="checkbox"/> Floodplain Impacts <input checked="" type="checkbox"/> Navigable Waters of the US Impacts<br>Are 401/404 Permits likely to be required? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Impacts to: <input type="checkbox"/> Wetlands <input checked="" type="checkbox"/> Stream/Lake/Pond<br><input checked="" type="checkbox"/> ACE LON <input type="checkbox"/> ACE NW <input type="checkbox"/> ACE IP <input type="checkbox"/> DOW IWQC <input type="checkbox"/> Special Use Waters<br>Upper Branch North Fork River |            |
| <b>F. Noise</b><br>Are existing or planned noise sensitive receptors adjacent to the proposed project? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br>Is this considered a "Type I Project" according to the <a href="#">KYTC Noise Analysis and Abatement Policy?</a> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  |            |
| <b>G. Socioeconomic</b><br>Check all that may apply: <input type="checkbox"/> Low Income/Minority Populations <input type="checkbox"/> Relocations <input type="checkbox"/> Local Land Use Plan available<br>Need Plans. Environmental Justice located near north end.  |            |
| <b>H. Section 4(f) or 6(f) Resources</b><br>The following are present on the project: <input type="checkbox"/> Section 4(f) Resources <input type="checkbox"/> Section 6(f) Resources<br>None seen.   |            |
| Anticipated Environmental Document:   | CE Level 2 |

**IV. PROJECT SCOPING, NEEDS & PURPOSE**

**A. Scoping & Need:**

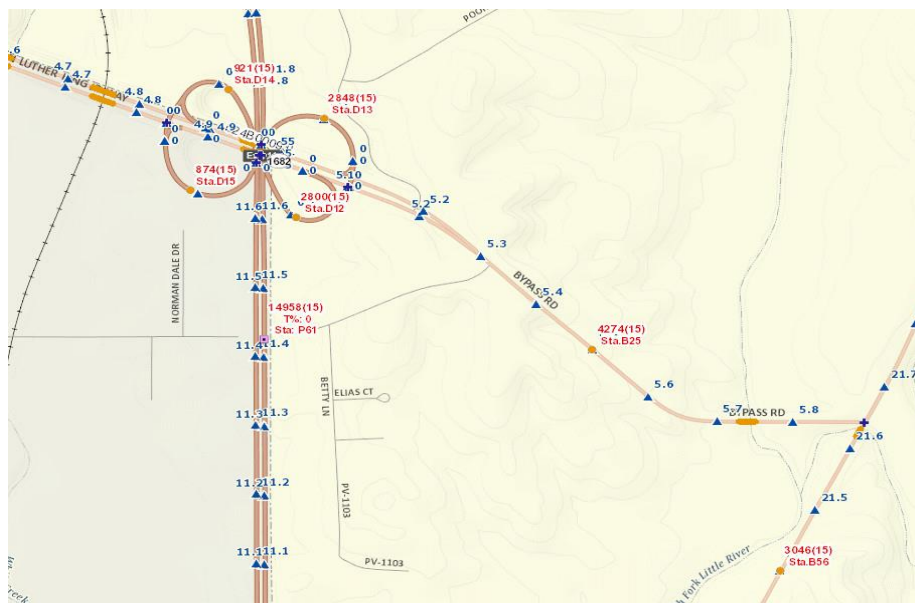
This project will relieve congestion and improve traffic flow in the northeast Hopkinsville area.

**B. Draft Project Purpose:**

Extend KY 1682 from the E.T. Breathitt Parkway to US 68/ KY 80.

| V. PROJECT ESTIMATE & METHODOLOGY                        |   |              |
|--|---|--------------|
| Estimate Methodology:                                    | Current Estimate                                |              |
| Current estimates are based on similar projects.         | Phase   | Estimate     |
|  | Planning  | 0            |
|  | Design  | \$2,710,000  |
|  | R/W   | \$3,500,000  |
|  | Utilities                                       | \$1,900,000  |
|  | Const   | \$27,000,000 |
|  | Total   | \$35,110,000 |
|  |   |              |
| VI. UTILITIES POTENTIALLY AFFECTED - CONTACT INFORMATION |   |              |
|  |   |              |
| Company Name -   | PRECC   |              |
| Contact -  | Gary Breaden                                    |              |
| Address -  | 2000 Harrison Street; Hopkinsville, KY 42240    |              |
| Phone No. -  | 270-886-2555                                    |              |
| Company Name -   | AT&T  |              |
| Contact -  | Michael Forrest                                 |              |
| Address -  | 801 Richard Street; Hopkinsville, KY 42240      |              |
| Phone No. -  | 270-889-9782                                    |              |
| Company Name -   | TVA   |              |
| Contact -  | Mark Johnson                                    |              |
| Address -  | 6405 Russellville Road; Bowling Green, KY 42101 |              |
| Phone No. -  | 270-846-7015                                    |              |
| Company Name -   | HWEA  |              |
| Contact -  | Mike Beck                                       |              |
| Address -  | 401 East 9th Street; Hopkinsville, KY 42240     |              |
| Phone No. -  | 270-887-4242                                    |              |
| Company Name -   | Time Warner Cable                               |              |
| Contact -  | Tim Mracek                                      |              |
| Address -  | 515 Double Springs Rd; Bowling Green, KY 42101  |              |
| Phone No. -  | 270-392-1041                                    |              |
| Company Name -   | Atmos Energy                                    |              |
| Contact -  | Chase Downing                                   |              |
| Address -  | 3275 Highland Pointe Road; Owensboro, KY 42303  |              |
| Phone No. -  | 270-685-8128                                    |              |
| Company Name -   | Hopkinsville Electric System                    |              |
| Contact -  | Jeff Hurd                                       |              |
| Address -  | 1820 East 9th Street; Hopkinsville, KY 42241    |              |
| Phone No. -  | 270-887-4200                                    |              |
| Company Name -   | Christian County Water District                 |              |
| Contact -  | James Owen                                      |              |
| Address -  | 1960 Dawson Springs Rd; Hopkinsville, KY 42240  |              |
| Phone No. -  | 270-886-3696                                    |              |

## VII. TABLES AND EXHIBITS



### Historical Traffic Volume Summary Station Details:

|             |  |
|-------------|--|
| Sta ID:     | 024B25                                 |
| Sta Type:   | Full Coverage                          |
| Map:        | <a href="#">MapIt</a>                  |
| District:   | 2                                      |
| County:     | Christian                              |
| Route:      | 024-KY-1682 -000                       |
| Route Desc: | DR MARTIN LUTHER KING JR WAY+BYPASS RD |

|              |                                |
|--------------|--------------------------------|
| Begin MP:    | 4.9730                         |
| Begin Desc:  | EB 9004 (EDWARD T BREATHITT PK |
| End Mp:      | 5.8940                         |
| End Desc:    | KY 107 JUNCTION                |
| Impact Year: |                                |
| Year Added:  |                                |

### Newest Count:

|           |        |
|-----------|--------|
| AADT:     | 4274   |
| Year:     | 2015   |
| % Single: | 5.5450 |
| % Combo:  | 7.5670 |
| K Factor: | 12.60  |
| D Factor: | 55     |

### Definitions:

Sta. ID - Three digit county number + station number

MP - milepoint

Impact Year - year of significant change to traffic pattern within station segment

AADT - Annual Average Daily Traffic - the annualized average 24-hour volume of vehicles on a segment of roadway

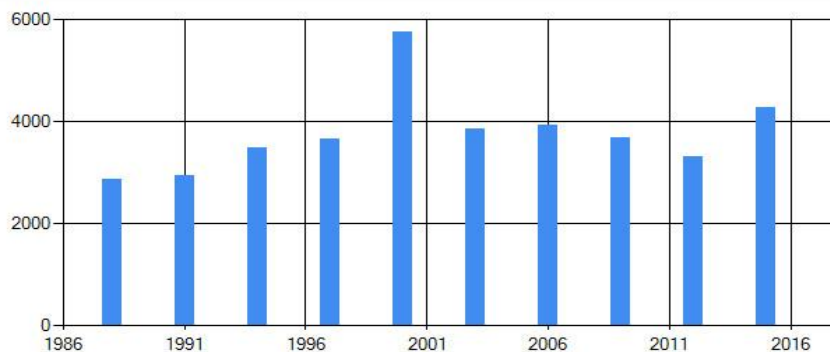
% Single - single unit truck volume as a percentage of the AADT

% Combo - combination truck volume as a percentage of the AADT

K Factor - peak hour volume as a percentage of the AADT

D Factor - percentage of peak hour volume flowing in the peak direction

| Year | AADT | Year | AADT | Year | AADT |
|------|------|------|------|------|------|
| 2017 |      | 2007 |      | 1997 | 3670 |
| 2016 |      | 2006 | 3930 | 1996 |      |
| 2015 | 4274 | 2005 |      | 1995 |      |
| 2014 |      | 2004 |      | 1994 | 3480 |
| 2013 |      | 2003 | 3860 | 1993 |      |
| 2012 | 3318 | 2002 |      | 1992 |      |
| 2011 |      | 2001 |      | 1991 | 2950 |
| 2010 |      | 2000 | 5760 | 1990 |      |
| 2009 | 3690 | 1999 |      | 1989 |      |
| 2008 |      | 1998 |      | 1988 | 2880 |





**VII. TABLES AND EXHIBITS (cont.)**

